



A pragmatic logic of transparency

development of a model
for a compared study of public policy texts
in Latin American countries

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Abstract

This article aims to the logical development of a practical and applicable analysis model of argumentative transparency, specifically for the study of public policies.

To this end, we draw upon a “political concept of transparency” which redefines pragmatic logic operations in contexts of trust and cooperation between actors.

The model combines a principal-agent framework, non-linear assumptions of production of information, and conversational maxims of use of language.

This results in an analysis that is focused on the actors’ capacity and their relation. The model also finds a necessary link between active and passive transparency processes, where the building of trust arising from transparency is directly associated with the reduction of control costs.

In addition, this article intends to be an applied model, with visual tools related to transparent decision-making processes, protocols for marking up transparency in texts and, finally, an empirical analysis of transparency in the argument of specific public policies. The combination of multiple frameworks and the deduction of a logical model presents an original work for the study of public policies.

Key words

transparency; pragmatic logic; public policy; argument; use of language

Statement of the problem and article objectives

Transparency is a vague concept. In general, this concept has not been approached scientifically with precision, but it has been widely used in political contexts to show some kind of “commitment” to build trust between actors.

The first observation to make is that social and economic studies has not been successful with theoretical transparency definition, with limited concepts and with gaps in applied approaches (Gupta and Mason, 2014). From the information theory (Cover and Thomas, 2006) to cooperation models in the game theory (Schmidt, 2002), to name but a few, there are multiple and complex variations of mathematical calculations and social ontology related to a vague concept of transparency. Hence, such kind of transparency definitions have not had practical implications.

However, if transparency attempts to be a practical commitment in the political sense, it is best to deal with it along the same lines. The rules of abstract logic that are not processed in real time by actors (Gilles, 2010) will hardly have the practical sense which the notion of transparency apparently wants to have from this political point of view.

In fact, the objective of this article is to identify and modeling the logic behind the political commitment that is attempted to be established between actors. The ultimate goal is to test a definition of transparency that can be applied.

Thus, this article aims to adapt the maxims of the pragmatic use of language in a principal-agent context of asymmetric information. After defining a pragmatic logic of transparency, our model will be applied to the analysis of specific public policies¹.

Theoretical framework: principal-agent and use of language

The so-called information economics (Laffont and Martimort, 2002) has focused on the problem of asymmetric information between principal and agent.

Principal and agent enter into a contract that is based on the following idea: the agent’s capacity enables him to deal with the principal’s matters.

The first thing we need to clarify is that this contract of “representation” is not a complete delegation, but rather it involves the principal’s commitment to monitoring the agent, so that the agent adjusts its behavior to the contract in case of non-compliance.

Meanwhile, Stiglitz and Arnott (1986) define the relation in terms of a “moral hazard” assumed by the principal, who never has complete information about the agent’s actions. The moral hazard means that the handling of closed, privileged information by the agent may bring about negative consequences for the principal. This is the problem that has to be dealt with.

However, it is important to take an in-depth look at the situation. In fact, the so-called asymmetric information which is defined in our theoretical framework is based on two (1 and 2) conditions: asymmetry is related to the knowledge of the true capacity of the agent (1), and always in a context of different interpretations about the limits of the contract, which is imperfect and incomplete (2). This point is essential to understanding this model and will be discussed further below.

Thus, in the context of this “moral hazard” (Stiglitz and Arnott, 1986) problem, access to information under conditions of transparency may be an effective means of control to ensure the agent adjusts its behavior to the principal-agent contractⁱⁱ.

But, under these circumstances, how can we guarantee the communication of transparent information from the agent to the principal?

This involves considering the pragmatic dimension of the use of language and, in particular, Grice’s maximsⁱⁱⁱ (Cole and Morgan, 1975). This framework has several advantages to resolve problems arising from the principal-agent asymmetric information. Specifically, it will allow us to consider transparency without rigid models of abstract logic (Gamut, 1991) and to think about better conditions of transparency arising from the search of trust and political cooperation that we assume of actors.

A pragmatic logic model requires certain rules that build trust in other actors (creating possibilities of control), but does not depend on the logic condition of truth of the statements. Thus, the agent’s transparency consists in giving information that will allow the principal to control the agent at different cost levels.

Model assumptions, concept definitions, and key approaches

The combination of these two theoretical frameworks (principal-agent and the use of language, at the points where they intersect each other) create a powerful model of information transparency. Specifically, in this model, we define the following assumptions which coordinate both frameworks:

- 1) [Pr] and [Ag] agree a vague agenda about a vague theme.
- 2) [Ag] has a finite capacity [Y].
- 3) The [Pr] knows the [Y] of [Ag] to a limited extent.

In this context, we define the following concepts:

- 1.[Pr]= Principal in the principal-agent theory
- 2.[Ag]= Agent in the principal-agent theory
- 3.Agenda= An imperfect [Pr]-[Ag] contract, a specific framework for the communication of information from [Ag] to [Pr]
- 4.Theme= Framework of general criteria of construction of information where agendas are inserted
- 5.[Y]= Capacity of accessing data and data processing to create information

That is to say, the first reference that we should seek to demonstrate is that there is a specific, although incomplete, contract between the principal and the agent in the context of a theme. A theme is certain “state of the art” that reflects the history, in various real contexts, of the construction of information with different levels of legitimacy regarding its accuracy and completeness. The agenda is specific to a context, while the theme exceeds the particular context.

Then we defined the capacity of the agent that has information as an access and processing capacity (transforming data into information)^{iv}.

Here it is also important to specify the overall concept of information, since information results from integrating different components in an argument. Therefore, when we talk about transforming data into information, we actually think about integrating data in an informative argument. Argument links a statement (“A” or “B”) with its resources (evidence and thematic standards, in this model). In this context, we need to define one more concept (at least now) to create a pragmatic logic of transparency model: evidence.

- 6.Evidence= Methodical construction of information based on data

Finally, to conclude this section, we define two key approaches that are needed for the development of the model:

- I. Selection of information statement (select an “A”) = Performed through the “theory of attention” (Cohen, March & Olsen, 1972, pp. 3)
- II. Ordering of information statement (“A” > “B”) = Performed by delimitation of a theme

These key approaches I and II are essential for a pragmatic logic of transparency since they entail two points.

Firstly, a rupture with linear logics in the construction of information by assuming that attention determines selection. An “A” is stated (selected) because the evidence which allows to make a statement “A” was “found” within a system, for example, an organization^v (Cohen, March and Olsen, 1972). This is a very important point of the model because this selection may cost as much as [Y] or less than [Y] for the agent. That is, all the agent's capabilities may not be compromised to ensure the relevance of what is stated (“A” with evidence).

Secondly, at a higher level, whenever there are ordering criteria, these depend on the delimitation of the theme's general framework, which will depend, in turn, on the agenda and [Y]. We will elaborate on the application of these ideas below.

Pragmatic transparency definition

We have reformulated Grice's maxims (Cole and Morgan, 1975) as conditions for transparency of the information provided by an agent to a principal (active transparency).

The agent is transparent about the affirmative statement^{vi} “A” if:

1. The agent has evidence of “A”.
2. The principal does not have evidence of “A”.
3. Any “B” that is more relevant to the theme than “A” (“B” > “A”) does not comply with: maxims 1 and 2 and is adaptable to the domain.

Let us explain in detail these three maxims of transparency.

Maxim 1 and maxim 2 fall within key approach I (based on the theory of attention), whereas maxim 3 falls within key approach II (based on ordering).

Maxim 1 implies an obligation of the agent to provide evidence about what he states, while maxim 2 implies that the agent should not provide information (affirmative statement plus evidence) which the principal already had.

Maxim 3 needs to be developed further. By definition, “B” is the comparison that requires “A” to be a part of the theme. In other words, “B” is always defined based on the theme.

For our purposes, we are interested in the comparison (ordering) to determine the pertinence to the theme, and relevance to this theme, of affirmative statement “A”.

So, how does this take place from an agent’s communication?

In fact, the agent, at this point, will focus on demonstrating that there is no “B” more relevant to the theme than his affirmative statement “A”. To achieve this, the agent only has to demonstrate that “A” is equal to “B” (“A” = “B”).

In other words, that “A” is part of the theme (“A” is part of the state of the art) and that is the strongest affirmative statement that he could make within the theme. This is what this maxim entails for the agent.

Then, how is the construction of this comparison made by the agent?

The complete “B” is constructed by the agent from a “B” that contains different criteria of construction of information (state of the art). From this “B”, the agent delimits the criteria, transforming “B” into “B”. This means that the agent delimits the state of the art, ordering those elements that are applicable to its context. The important thing is that this delimitation is made in relation to the capacity [Y] of the agent and to the agent understanding of the limits of the principal-agent contract. Those are the criteria of delimitation.

This form of construction of “B” compels us to define the domain, which we add as an initial concept of this model:

7.Domain= Framework of the agent’s action, according to the agent’s capacity and limits of the principal-agent’s agenda

We show below in four quadrants the place occupied by the domain (Figure 1) to visualize this central point of the model.

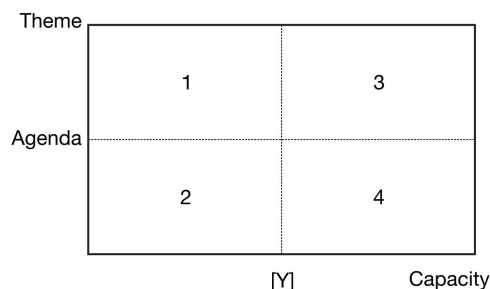


Figure 1: Domain and outer quadrants

From the perspective of the agent, we have four quadrants.

Quadrant 1 involves the information available within the agent's capacity and within the theme ("B"), but outside the specific principal-agent's agenda.

The discursive construction of the agenda^{vii} (inside a theme) involves multiple dimensions (Cobb and Elder, 1972). For example, under the theme of "government transparency" it is common in Latin American countries to develop an agenda of "prevention of conflicts of interest of public officials" but not an agenda of "control over suppliers of the government", even though government (agent) has the capacity to access and process that kind of information.

Quadrant 2 represents the domain, i.e. the information within the agent's capacity [Y] and the principal-agent's agenda ("B" = "A").

Quadrant 3 is beyond the agent's capacity and the principal-agent's agenda.

Finally, quadrant 4 is information within the principal-agent's agenda (established agenda: under the line, quadrants 2 and 4), but it is information that exceeds the (access or processing) capacity of the agent. For example, it is the typical formula in "Access to Public Information Laws" that do not oblige governments to provide information that is not processed in the way it is requested, even if it is part of an agenda between government (agent) and society (principal). It is a matter of form not of theme.

The important point is that by limiting the theme to the agenda, the agent will seek to demonstrate that "B" = "A" and that there is no "B" more relevant to the theme than "A". The delimitation involves demonstrating that not all "state of the art" criteria are applicable to the particular principal-agent context, but only the ones that are stated by the agent, according to its capacity.

In other words, from an [Y] perspective, the agent must produce the most relevant evidence ("A" plus evidence) in the theme and for this it must be evidence ("A" plus evidence) according to the discursive agenda between principal and agent.

It is important to mention that "A" is original in the agenda (information that the principal did not have, maxim 2), but it is not original in the theme, since it is the result of the delimitation of such theme. An "A" more relevant to the theme than "B" would entail a condition of originality that exceeds the requirement of transparency^{viii}.

Now it becomes clear that if there were a "B" (that complies with maxims 1 and 2 and is adaptable to the domain) more relevant than "A", we would face a problem of lack of transparency, such as the problem of imprecise or incomplete information.

The control side

Now, how does this model work on the principal side?

In this context of maxims of transparency to be fulfilled by the agent, the principal can exercise control at different costs. Transparency, as defined in this article, is associated with certain conditions that enable the principal to exercise control over the agent.

Firstly, if there is evidence about the agent's affirmative statement, the principal can exercise the internal control of the evidence (an internal criticism) by presenting some hypothesis of the "Non-A" kind. In other words, using some kind of blocking defeater (García, 1995) as a means of passive transparency control^{ix}, which is defined as the interpellation after the agent's active transparency.

Secondly, the principal may easily know if the agent provided him with information that the principal already had.

Thirdly and lastly, the principal may exercise external control (an external criticism) by verifying the theoretical and/or methodological "standards" which the agent delimited from the theme. A standard is a benchmark to measure or value a particular affirmative statement worthy of a kind (theme). We include below the conceptual definition of standard in this model:

8. Standards= Resources of authority that link an affirmative statement with a theme

In the thirdly case, it is understood that the principal performs the verification from its own "B", which we will call "B'". In other words, the principal observes from his own idea of the state of the art^x whether the agent delimited theoretical and/or methodological standards to the domain (but now from the principal's perception of the domain limits).

In this sense, the principal could present the agent with some kind of external control hypothesis, such as: "B" (derived from "B'") > "A". In other words, the limits of "B" (as understood by the principal) are "wider" than the ones communicated by the agent with "A".

For the principal, this entails that there may be a "B" more relevant to the theme than "A". It is a "B" more accurate and complete, which the principal did not have, and it is a "B" that could be within the agent domain. This is the external control approach that the principal may propose in the form of a hypothesis (Figures 2 and 3).

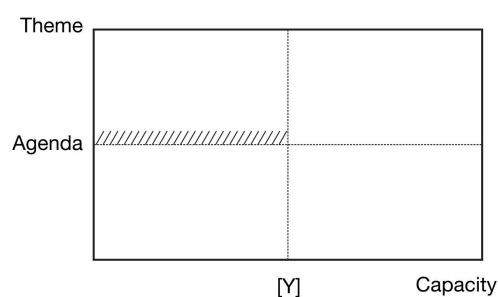


Figure 2: First hypothesis of passive control

Figure 2 shows that the principal may propose, as a (first) control hypothesis, that (within the agent's capacity [Y]) the principal-agent agenda is wider (vertically, regarding the theme) than the one stated by the agent (figure reference: ///////////////).

On the other hand, Figure 3 shows that the principal may propose, as a (second) control hypothesis, that the agent's capacity [Y] is greater, which entails considering a wider agenda than the one stated by the agent (figure reference: ///////////////). For the transparency analysis, it is important when a lateral expansion [Y] widens the discursive agenda (vertical expansion)^{xi}.

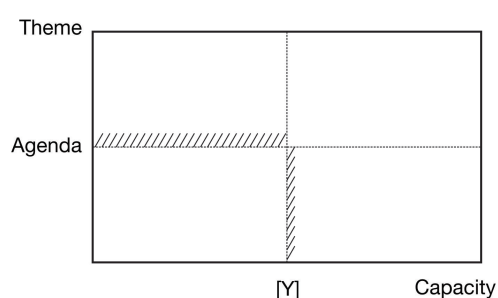


Figure 3: Second hypothesis of passive control

It is important to note (from the principals' perspective) that the agent underestimated the domain, which is a lack of transparency.

The different interpretation about the domain between principal and agent is what determines the problem of lack of transparency and the possibilities to control such problem.

It is also important to note that the external control hypothesis exercised by the principal is possible because the agent revealed his own "B". This allowed the comparison between a "B" of the agent and a "B" from the principal's perspective.

It is also worth mentioning that the agent's active transparency is established in the three maxims, but then it is necessary to use mechanisms of passive transparency so that the principal exercises a control which is similar to an interpellation.

In this regard, the idea of control cost refers to the principal's effort needed to raise a blocking defeater (García, 1995) of the "Non-A" kind or a hypothesis of control of the "B" > "A" kind. In other words, this is the cost of passive transparency control for the principal.

This is essential, as it enables us to understand that this logic derives from the idea that active transparency cannot exist without mechanisms of passive transparency (access to passive information and their costs).

It is also interesting to note that the passive transparency creates a more dialogic relation between principal and agent. The agent will need to demonstrate, after the external control hypothesis proposed by the principal, that the principal's "B" has no evidence, that it is information which the principal already had, or that it is not adaptable to the agent's domain.

Information components in a maxims tree

Now, at this point of the model, we are able to develop the definition of the components of information. As we have previously mentioned, these are, in fact, the components of an informative argument: affirmative statement, evidence and thematic standards.

Thus, we further develop this idea of components through the design of a maxims tree before applying it to case studies about public policies.

We include below a chart (Figure 4) in the form of a maxims tree that integrates the maxims of transparency from the agent's perspective.

$X = 0$ means that there is no evidence of X , whereas $X = 1$ means that there is evidence of X .

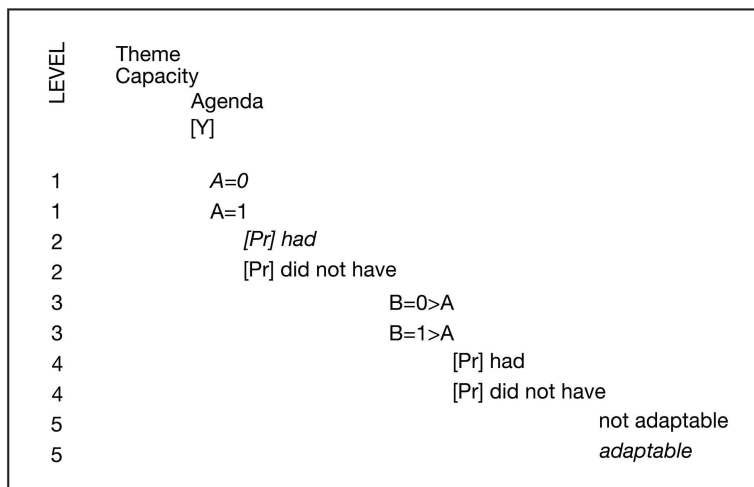


Figure 4: Maxims of transparency tree (with level)

This tree shows the logic of the model of transparency applied to the agent's decision-making processes, introducing the notion of level.

As we can see, the principal-agent agenda arises from the theme. This agenda and the agent's capacity (derived from the notion of capacity) determine an affirmative statement ("A") of the agent. This affirmative statement "A" may have no evidence ($= 0$) or may have evidence ($= 1$). This is level 1 of transparency.

In the first case, this is a lack of transparency (*italics*). In the second case, an "A" is stated because the evidence which allows to make an affirmative statement "A" was "found" within a system (Cohen, March and Olsen, 1972). This selection of "A" may cost as much as [Y] or less than [Y] for the agent, this is why maxim 3 is essential, acting in conjunction with maxims 1 and 2.

In level 2, if there is an affirmative statement with evidence, this could be information that the principal already had (which represents a lack of transparency for us) or it could be information that the principal did not have (original in the agenda).

Only if we have information with evidence that the principal did not have (compliance with maxims 1 and 2), we can move to a depth level 3. This level 3 includes the key approach II conditions, i.e. comparison criteria based on ordering, rather than a selection based on attention (evaluation of the standard component).

At this level 3, it is possible that there is no evidence of an affirmative statement “B” that is stronger than “A”. In such case, an affirmative statement “A” remains the strongest affirmative statement that the agent could make.

On the other hand, at this level 3, we could have a “B” with evidence more relevant to the theme than “A”. This is not a problem if at level 4 we identify that such “B” is information that the principal already had. This is not a problem because the agent should provide information that the principal did not have.

In contrast, at this level 4, alarms will be triggered if this is a “B” with evidence, it is more relevant than “A”, and it is information that the principal did not have. However, this is still not a problem (at level 5) if it is a “B” which is not adaptable to the domain. In other words, it does not belong to the [Pr]-[Ag] agenda and it is not within [Y].

Nevertheless, there would be a lack of transparency if there is a “B” with evidence which is more relevant than “A”, it is information that the principal did not have and it is information that should have been provided because it is within the principal-agent agenda and within the agent’s access and processing capacities.

In fact, as we will see below, the agent never proves (due to a condition of impossibility) that every “B” = 0, or that every “B” = 1 is information that the principal already had, or that every “B” = 1 is not adaptable to the domain. Multiple “B” is a representation of everything that is not “A”; it is the universe not embraced by the affirmative statement “A” and, therefore, every possible “B” is not demonstrable. In reality, as we mentioned before, what happens is that the agent will seek to prove that “A” = “B”. This test of “A” = “B” of the agent will allow to propose one (or several) hypothesis of passive control exercised by the principal. This is a hypothesis in the form of a “B” (from the principal), with evidence, more relevant than “A” (from the agent), which is information that the principal did not have, and it is information that the agent should provide because, to the principal, it is part of the principal-agent’s agenda and it is within the capacities that the principal considers the agent has.

In other words, with this requirement, the agent has ordered (by delimitation) certain standards of the theme, allegedly the most relevant ones, to construct the most accurate and complete information possible. In this context, the principal, through his knowledge of the theme, could propose, for example, that there are more relevant standards which allow to construct more accurate and complete information and that this is information that the principal did not have.

The solution to this interpellation of the principal to the agent, as we have seen, will depend on whether the principal's proposition is adjusted or not to the agent's domain. Or rather, it will depend on how the discussion between principal and agent about the domain's limits is resolved.

Text analysis method for a public policy study

In our case of application, we will define two subtypes of standards: regulatory and methodological standards.

Regulatory standards include theoretical, conceptual and even legal standards. These standards are linked to the affirmative statement, in order to insert it in the theme's "state of the art".

On the other hand, methodological standards are those directly linked to the production of evidence and, thus, indirectly linked to the theme.

As we will see below in the case of application of public policies, within the standard requirement, we can establish two depth levels for each subtype.

The first level refers to the standard's mention (for example, quotes) and the second level refers to the mention's linkage (links to regulatory documents or to a microdata repository, for example, in the case of regulatory standards and methodological standards, respectively). This second level refers to the linkage of a standard with source documents.

The reference to certain standards (and their depth level: mention and linkage) allows the principal to exercise control at different costs. For example, the linkage would allow the principal to have a better perception of "the origin" of the delimitation made by the agent.

Our model and its case of application will focus on textual analysis. In other words, we will analyze certain texts with arguments based on affirmative statements. We will aim to identify associations between affirmative statements and evidence and, then, the relation of affirmative statements and evidence with regulatory and/or methodological standards. This results in two levels of control: a control of the "Non-A" kind and a control of the "B" > "A" kind, exercised by the principal over an agent.

Thus, we will have different levels of transparency within a text, as shown in Table 1 below.

Table 1: Levels of textual transparency

Level	Description	Type
0	<ul style="list-style-type: none"> Affirmative statement without evidence. Affirmative statement with evidence that [Pr] already had. Existence of an affirmative statement more relevant than the [Ag] affirmative statement: with evidence, which [Pr] did not have, and adaptable to the domain. 	<ul style="list-style-type: none"> Lack of information that makes control impossible. Imprecise or incomplete information, which was demonstrated in the instance of passive control.
1	<ul style="list-style-type: none"> Affirmative statement with evidence that [Pr] did not have. 	<ul style="list-style-type: none"> Original information, an argument associated with processed data; internal control is allowed, but external control at a low cost is not allowed.
2	<ul style="list-style-type: none"> Affirmative statement and evidence with regulatory and/or methodological standards. 	<ul style="list-style-type: none"> Theoretical, conceptual, legal and methodological references associated with an affirmative statement and data; external control is allowed (and the internal control cost is lower).
3	<ul style="list-style-type: none"> Linkage of the level 2 	<ul style="list-style-type: none"> Theoretical, conceptual, legal and methodological links or annexes that allow external control at a low cost (and the internal control cost is lower). Development of methods (in repositories or micro databases) that reflect the use of the operations standards; external control at a low cost is allowed (and the internal control cost is lower).

As we have seen in the description of type, this is an important point that deserves further attention: there is an association between internal control and external control. Especially, in the sense that a deeper external control enhances the opportunities of internal control.

A special case occurs with methodological standards, since the access to methodological sources reflects the standards of operations utilized, but it may also show how they were utilized. For example, if the principal has access to a microdata repository, this enables him to make an external criticism about the method selection, but also an internal criticism about the method utilization.

From the principal's perspective, a method may be poorly selected or underutilized (external criticism) or may be improperly utilized (internal criticism).

In other words, if we had an agent's text at a level 1 of textual transparency, the internal criticism ("Non-A") may require other levels (2 and 3) to make the job easier for the principal. The issue is precisely that access to such levels is not granted by the agent, which increases the costs for the principal to make an internal criticism to the agent.

Here it is important to understand that access to standards works, mainly, for external criticism, but reduces the cost of the internal criticism for the principal. This usually happens in the case of methodological standards.

Analysis of some public policy cases

We will use recent World Bank projects (2012-2015) which are available in its open database: <http://www.worldbank.org/projects>, to make a comparative analysis of their textual transparency level. We will analyze public policies^{xii} from an agent (the national agency that prepared the text) which are addressed to a principal (the World Bank, entity that approves and monitor the project implementation). The analysis will focus on eleven (11) Latin America projects (in Spanish), with special attention to the section "Country Context" of such projects. This section includes a series of arguments about the national context of implementation of such projects.

In Table 2 below, we describe our protocol DTD (Document Type Definition) for XML (eXtensible Markup Language). The development of a markup metalanguage protocol allows us to define our pragmatic logic criteria in a format that facilitates the subsequent analysis and exchange of information.

Table 2: Textual transparency DTD/XML protocol

Element	Description
CONTEXT	<ul style="list-style-type: none">• Main root (it represents the “Country Context” section of the original text)
context	<ul style="list-style-type: none">• Affirmative statement with no evidence/standard, empty words, empty signs and spaces• It is located on the nearest root trying (as far as possible) not to lose the original text linearity, since the derivation of other elements of the context is not analyzed, and in order to facilitate the reading of the XML tree• It is not read in the final processing
affirmative statement_pos	<ul style="list-style-type: none">• Text with a positive connotation
affirmative statement_neg	<ul style="list-style-type: none">• Text with a negative connotation
affirmative statement	<ul style="list-style-type: none">• Text without any connotation (neutral)
evidence	<ul style="list-style-type: none">• Data with quantitative processing
regulatory	<ul style="list-style-type: none">• Standard, mention of institution or referent, regulatory quote
method	<ul style="list-style-type: none">• Standard, quote, specific methodological formula
link_regulatory	<ul style="list-style-type: none">• Regulatory link
link_method	<ul style="list-style-type: none">• Methodological link or annex

The application of a markup language to a text aims to identify, as unambiguously as possible, the preceding components (XML elements) and every possible combination of them. Initially we worked with a simple format, described in Table 2, but the possibilities of increasing the complexity of this type of application are high, for example, through XML attributes or by articulating the DTD RDF (Resource Description Framework) in order to create XML/RDF protocols.

This enables us to identify transparent arguments with affirmative statements, evidence, standards and linkages. And other arguments which are not as complete in terms of their level of transparency: an affirmative statement with evidence, but without standards; an affirmative statement with evidence and standards, but without linkages; or an affirmative statement with standards, but without evidence. This last case, clearly, does not comply with level 1 of transparency.

At this point, it should be mentioned that there is a legitimization among the XML elements themselves. In other words, an affirmative statement will be considered as such if it has evidence and/or standards (at the markup language level). Otherwise, it will be referred to as context. Therefore, the legitimization is of a relational kind between XML elements.

Also, in this case of application, the affirmative statement has a feature that is important to the context of public policies. This involves identifying the positive or negative connotation of the affirmative statement (Meister, 1991). In general, the negative and positive connotation is about determining, in a public policy framework, whether it is information related to problems (needs, demands) or, on the contrary, related to solutions (goals, resources). In other words, information with negative and positive connotation, respectively. It has been noted that this differentiation between positive and negative affirmative statements is very useful for this type of application of the model.

It is also important to clarify that, in this particular case, the objective was to identify quantitative evidence only, although the definition of evidence includes the possibility of methodical production of qualitative evidence.

On the other hand, there are some special features identified in public policy texts of the World Bank which involved specific decisions in the markup exercise.

It should be noted that vague mentions of evidence were added, for example, mentions in the form of “close to X percent”. It is assumed that there is a specific number “close to X percent”, but the agent preferred to argue with vague evidence.

This imprecise addition has a limit: it does not consider affirmative statements such as “lower than” or “higher than” or “it is one of the main”, which are recurrent but do not refer to any evidence. The markup exercise pursues precisely the objective of ruling out non-informative arguments, in the sense given in this article.

Particular attention was also paid to identifying quantitative evidence, taking care not to mark the reference universe as different evidence. In this regard, careful consideration was given when identifying comparisons as evidence, since a comparison acts by showing the level of the unit of evidence and also acts (often) as a standard. Anyways, this latter perspective was not considered, and comparative evidence was specified only as evidence.

As regards the markup rules, it was also specified that affirmative statements which share evidence or standards should be referenced as many times as the affirmative statement appear.

It is also worth mentioning the problem identified with standards, especially regulatory standards. In many cases, it was very difficult to identify regulatory standards, mainly because internal standards (from the country where the public policy is implemented) are often the object of the argument rather than a standard. For example, a national public agency may be a standard that marks a parameter of implementation of a project or may be the implementing agency (object). This clearly depends on the construction of each particular argument.

Finally, we found numerous repetitions (of the same component of an argument); in such cases, we decided to mark the most accurate and complete component to avoid counting twice the same component of an argument. This is different from nested affirmative statements, evidence or standards, where the encompassing element includes the child element, which is why the element is not counted twice in our markup.

The markup method and the corresponding source files are available in the repository of the Catholic University of Cordoba, Argentina: <http://pa.bibdigital.uccor.edu.ar/905/>.

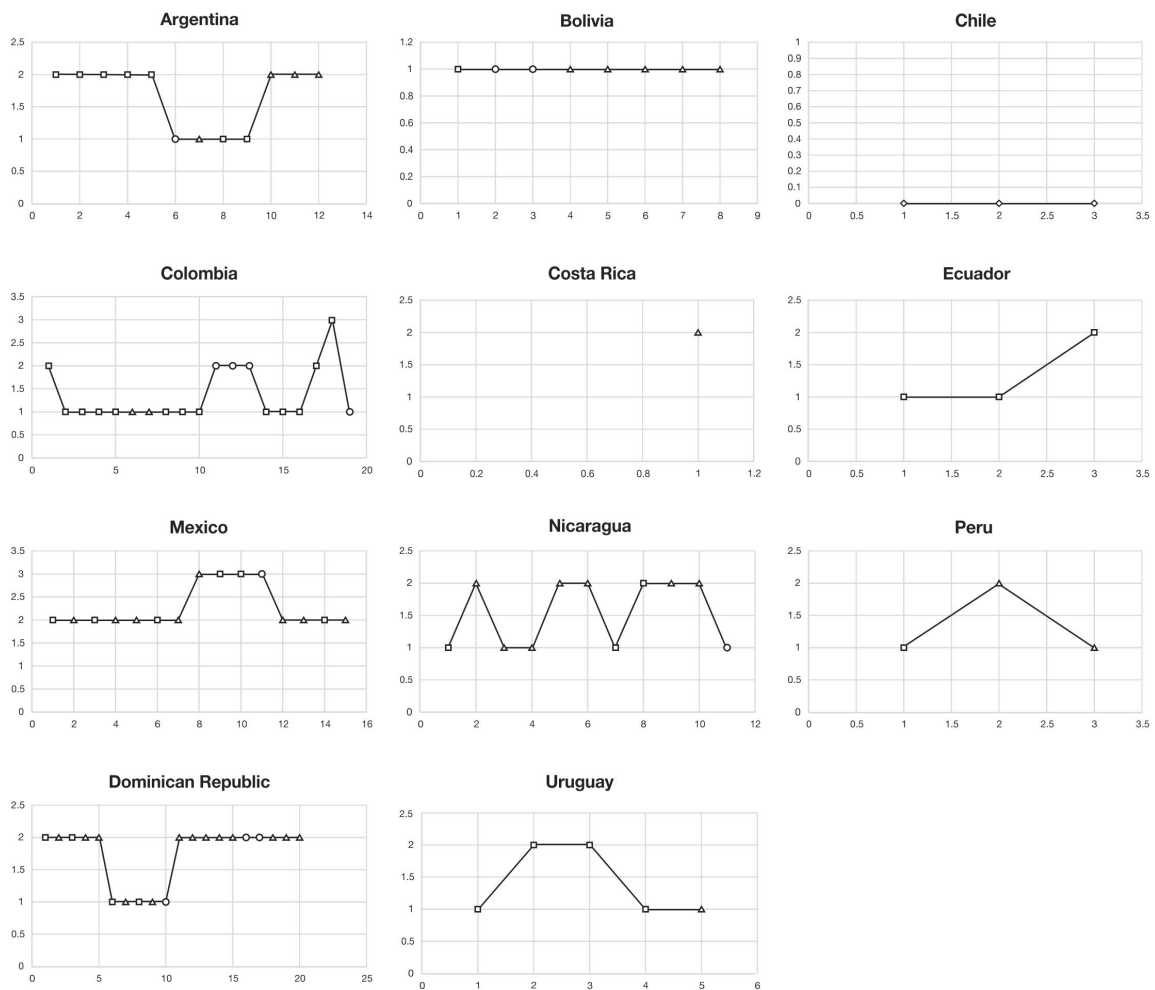
Thus, based on the analysis of the markup of texts, we identified a number of interesting findings about the level of transparency in World Bank public policies for the text of each of the countries included in the analysis.

Results: levels of transparency in World Bank public policies

Below are graphical representations of each text by country. These graphs provide a comparison of the same type of text, within the same type of document and measured by the same type of protocol. The horizontal axis represents different affirmative statements with some level of transparency (1 or 2 or 3), in the sense of the timeline of the argument that is found in the analyzed text.

The vertical axis represents the measure of the level of transparency itself (1,2,3).

On the other hand, the connotation of the information included in public policies is form-coded (at benchmarks), where [square] represents a positive connotation, [circle] represents a neutral connotation, and [triangle] represents a negative connotation. Reference is only made to connotations with some level of transparency.



Graph 1: Textual transparency; analysis of World Bank policies by country

The preceding collection of graphs can be comparatively summarized in a ranking of transparency of texts. This ranking could add up the number of affirmative statements multiplied by their level of transparency (1, 2 or 3).

In this case of application, linked to a particular section of argument within texts of public policies of the World Bank, the ranking is as follows: Dominican Republic (35), Colombia (26), Argentina (20), Mexico (19), Nicaragua (17), Bolivia (8), Uruguay (7), Peru (4), Ecuador (4), Costa Rica (2), Chile (0). This ranking reflects the level of transparent arguments in the section “Country Context” prepared by country teams of each country to be reviewed by the World Bank. The Dominican Republic is the country that argued more transparently, whereas Chile argued with the lowest level of transparency (in fact, no transparency at all).

Overall, arguments fluctuate between level 1 and level 2 of transparency, with very few cases of level 3. On the other hand, standards are generally of the methodological kind, and affirmative statements with evidence linked to a regulatory standard are scarce. Standards of the regulatory kind are generally linked to affirmative statements with no evidence and, therefore, do not comply with level 1 of transparency.

Additionally, each graph shows the reference to the information connotation (neutral, positive or negative, according to the form), which is of particular interest for the analysis of public policies. This enables us to make a comparative graph of the information connotation in each country.

The graph 2 simply reflects a value for each country (positive or negative) which is obtained by grouping the values of transparency^{xiii} with a positive connotation minus the group of values of transparency with a negative connotation, for each public policy.



Graph 2: Summary of the information connotation of each public policy

It is interesting to note that while the Dominican Republic and Colombia lead the ranking of transparency, they do so for arguing with different connotations: Dominican Republic argues with a negative connotation and Colombia with a positive connotation.

Mexico occupies a high position in the ranking of transparency and a middle level (value -1, near the axis 0) in the graph of information connotation, which means that their affirmative statements with different levels of transparency are fairly balanced as regards their connotation (almost equal numbers of transparent affirmative statements with a positive connotation and transparent affirmative statements with a negative connotation).

Final conclusions

A pragmatic logic of transparency constitutes a powerful model to resolve the problem of asymmetric information in the principal-agent framework. Or, at least, it enables us to approach such problem from a different perspective in public policy studies. In other words, the logical derivation arising from considering transparency as a political concept allows us to adapt the pragmatic maxims of use of language with new assumptions that clarify a particular model of application within this framework. Specifically, the model promotes thinking in terms of non-linear logics of production of information and focusing on the actors (their capacity) and their interpretation of the agenda which links them.

The main theoretical finding is the need to associate the building of trust with the reduction of control costs and, particularly, to establish a link between active and passive mechanisms of transparency.

Thus, the possibilities of application of the model are (naturally) created by specifying the different concepts arising from this new vision of the political notion of transparency.

This allows us, for example, to develop better decision-making processes based on transparency or to implement specific protocols to evaluate transparency within a text or speech in public policies.

In particular, the empirical analysis applied to the principal-agent relation in World Bank texts about public policies shows serious weaknesses in the creation of transparent arguments in terms of a pragmatic logic. These are highly professional texts, with well-regulated contracts and capacities, but, nevertheless, they fluctuate between basic levels of transparency.

Moreover, with a proactive spirit, the model is an opportunity to develop better applications than the ones created here. Future applications may cover the production and evaluation of arguments, in collaboration with new information technologies that will be made available for the transparency of reasoning.

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- ⁱThe model, in this sense, redefine vocabulary traditionally associated with public policy approaches, as "agenda" and "theme".
- ⁱⁱIt is interesting to see the access to information not only as a means of control for the principal, but also as a product of the agent itself to adjust its own behavior. Consider, for example, rules (access to information laws) that do not demand an agent to give information which is intended only for the principal's "private utility".
- ⁱⁱⁱMaxims of quantity, quality, relation, and manner of information.
- ^{iv}Agenda and capacity of the agent [Y] constitute the concept "domain"; in this model.
- ^vThe classic study "A garbage can model of organizational choice" (Cohen, March and Olsen, 1972) mentioned that variations in behavior in organized anarchies are due largely to questions of who is attending to what. From this point of view, an organization is a collection of issues and feelings looking for decision situations in which they might be aired.
- ^{vi}The analysis of transparency is limited to arguments in the form of affirmative statements. Thus, the concept of argument in this paper refers to an affirmative statement with its resources.
- ^{vii}Discursive agenda construction: frontier in the agenda line, space of dispute of meanings.
- ^{viii}An "A" more relevant to the theme than "B" would be more appropriate as a condition of scientific originality.
- ^{ix}Type of control (passive control) based on passive transparency processes, after active transparency of agent.
- ^xSharing an agenda (although vague) with the agent means that the principal has the capacity of understanding the theme (although vague) that covers such agenda. This is important so that the principal can exercise passive transparency control.
- ^{xi}This work is based on the assumption of a vague agenda because we consider a discursive agenda as argumentative construction. The established agenda (without discussion about its upper limit) that receives only a claim for an agent fraud over its operational capacity seems to be a matter more related to legality or efficiency than to argumentative transparency. We are interested when the agent undersizes [Y] to not be relevant to the theme, not when it is undersized [Y] to not do what is known to be and can be done.
- ^{xii}Public policy texts contain highly legitimized information, since they are written arguments about the decision-making processes of governments.
- ^{xiii}Number of affirmative statements multiplied by their level of transparency.